A public health approach to the prevention of myopia

About the talk:

The epidemic of myopia that has occurred in recent decades, largely in East Asia, calls for a public health approach to the prevention of myopia. While myopia has been thought of in the past as a genetic disorder, the rapid increases in prevalence point to environmental factors that are potentially able to be modified and the looming high prevalence of high myopia (<-5.0D) means urgent action is required to halt this epidemic. Locations with a high prevalence of myopia will inevitably experience a significant economic burden associated with myopia and its co-morbidities, which can cause visual impairment and blindness. The management of these conditions is likely to overrun current levels of eye health services. Preventing and/or delaying the onset of myopia and controlling the rate of myopia progression must all be considered in a public health approach to bring this epidemic under control.

About the speaker:

Professor Kathryn Rose is the Head of Discipline (Orthoptics) in the Graduate School of Health, University of Technology Sydney. She is a leading international researcher on the development of vision and refractive errors in children and adolescents. With a particular passion for paediatric eye care, she has a personal research emphasis on the development of ocular structures and functions, particularly in relation to myopia and its prevention and to vision screening in children. She has a focus on public health approaches and evidence-based practice in eye health care and has published extensively in these areas.

All are Welcome!

Wednesday
28th September 2016

1.00pm – 2.00pm
Level 6, Discovery Tower, The Academia
SGH-AC-6-2

Chairperson
Prof Saw Seang Mei
An integrated approach to preventing pathological myopia

About the talk:

The prevalence of high myopia has now reached 10-20% in young adults in developed countries in East and Southeast Asia. This appears to occur because children who become myopic in the early years of primary school subsequently progress to high myopia, with the prevalence rising continuously from the age of 11-12. This acquired high myopia differs from classical high myopia which was largely genetic in origin, and shows associations with education which are not seen with the genetic forms. Early results suggest that myopic pathology in acquired high myopia is significant, but somewhat less severe than in the genetic forms. Because of the probable increase in the prevalence of pathological myopia, prevention has become essential. Since the epidemics of myopia seem to depend on the conjunction of intense educational pressures and limited time spent outdoors, an integrated approach including education for young parents about the importance of time outdoors, school-based initiatives to increase outdoor exposures during preschool and school hours, and monitoring of refractive development to ensure timely interventions to slow progression of myopia, as well as action to decrease competitive aspects of the school systems, is likely to result in decreases in both the onset and progression of myopia, limiting the magnitude of the problem.

About the speaker:

Ian Morgan gained a PhD in Neuroscience at Monash University in 1969. After some years of research on the functions of defined retinal neuronal circuits in Strasbourg, France and at the Australian National University in Canberra, he became interested in the problem of myopia while studying dopaminergic function in the retina. He then became involved in laboratory research on experimental myopia at the ANU, as well as epidemiological research in the Sydney Myopia Study, with Professor Kathryn Rose, which produced evidence that increased time outdoors could prevent the development of myopia, probably through light activation of retinal dopamine release. Since his retirement in 2009, he has continued research on myopia through Visiting Fellowships at the Australian National University and the Zhongshan Ophthalmic Center in Guangzhou.

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